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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/967,068	09/27/2001	Ann Rhee	266/202	7381

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EXAMINER	
WU, QING YUAN	

ART UNIT	PAPER NUMBER
2194	

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/967,068	RHEE ET AL.	
	Examiner	Art Unit	
	Qing-Yuan Wu	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *6/13/05*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9,11-17 and 19-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-9, 11-17 and 19-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *1/14/05, 6/13/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 3-9, 11-17 and 19-30 are pending in the application.

2. Priority is claimed as a continuation-in-part pursuant to 35 U.S.C. § 120. The examiner acknowledges the priority claim and notes that only claims in a continuation-in-part application that is directed solely to subject matter adequately disclosed in the parent non-provisional application is entitled to the benefit of the filing date of the parent non-provisional application (MPEP § 201.11, section VI).

3. As to independent claims 1 and 9, examiner is unable to find proper disclosure of the limitations in the parent non-provisional application (i.e. quiescing resource consumer activity, preventing new activity, continuing already-running activity). Therefore, the above claims are rejected based on filing date 9/27/01.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 4, 9, 12, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeKoning (U.S. Patent 6,085,333), in view of Harris et al (hereafter Harris) (U.S. Patent 6,438,704).

6. As to claims 1 and 9, DeKoning teaches quiescing resource consumer activity in a computer system [DeKoning, col. 8, line 12], comprising:

preventing a first resource consumer from starting new activity on the computer system [DeKoning, col. 8, lines 12-13; col. 10, lines 7-8]; and

allowing a second resource consumer to continue already-running activity on the computer system [DeKoning, col. 8, line 13-14; col. 10, lines 8-9].

7. DeKoning does not specifically teach wherein the act of preventing the first resource consumer from starting new activity comprises setting an activity limit applicable to the first resource consumer to a prescribed value. However, Harris teaches limiting a particular user's CPU usage to an absolute value, so that their consumption does not exceed the limit value [Harris, abstract; col. 2, lines 29-36; col. 4, lines 6-11; 52, Fig. 6] (Examiner is unable to find proper disclosure of the following limitation, "active session limit" in the parent non-provisional application for claim 2. Therefore, it is rejected based on the application filing date of 9/27/01).

8. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have combined the teaching of DeKoning with the teaching of Harris, because the teaching of Harris prevent exhaustion of available resources by setting a limit for each consumer.

9. As to claims 25 and 27, DeKoning and Harris do not specifically teach wherein the prescribed value is zero. However, DeKoning disclosed preventing new host I/O request to the controller [DeKoning, col. 8, line 12] and Harris disclosed an administrator specifies a user resource limit in an absolute value [Harris, abstract; col. 2, lines 29-36; col. 4, lines 6-11].

10. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have recognized that the absolute value associated with any user's resource limit is configurable by the administrator to start or stop user's activity.

11. As to claims 26 and 28, DeKoning and Harris do not specifically teach wherein the activity limit comprises an active session limit. However, Harris disclosed limiting a particular user's CPU usage to an absolute value, so that their consumption does not exceed the limit value [Harris, abstract; col. 2, lines 29-36; col. 4, lines 6-11; 52, Fig. 6] (Examiner is unable to find proper disclosure of the following limitation, "active session limit" in the parent non-provisional application for claim 2. Therefore, it is rejected based on the application filing date of 9/27/01).

12. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have recognized that limiting the number of active session is implicitly limiting a consumer's resource consumption and to have limit the number of active session as a way of limiting a consumer's resource consumption.

13. As to claims 4 and 12, DeKoning and Harris do not specifically teach wherein the prevented activity is queued. However, Harris disclosed a work queue for queuing works that are waiting to be service by the resource [Harris, col. 6, lines 17-36; 42, Fig. 2]. In addition, it is well known in the art to queue un-serviced requests.

14. Claims 17, 20 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeKoning and Harris as applied to claims 1 and 25-26 above, in view of Jones et al (hereafter Jones) (U.S. Patent 6,003,061).

15. As to claim 17, this claim is rejected for the same reason as claim 1 above. In addition, DeKoning and Harris do not specifically teach a resource plan, the resource plan identifying a first resource consumer and a second resource consumer, among which a computer system resource is to be allocated and specifying an allocation of the resource among the first resource consumer and the second resource consumer, and a scheduler for allocating the resource among the first resource consumer and the second resource consumer according to the resource plan.

16. However, Jones teaches a resource plan [Jones, col. 5, lines 38-52], the resource plan identifying a first resource consumer and a second resource consumer, among which a computer system resource is to be allocated and specifying an allocation of the resource among the first resource consumer and the second resource consumer [Jones, col. 5, line 66-col. 6, line 40], and a scheduler for allocating the resource among the first resource consumer and the second resource consumer according to the resource plan [Jones, col. 6, lines 8-17].

17. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have combined the teaching of DeKoning and Harris with the teaching of Jones, because the teaching of Jones enhances the teaching of DeKoning and Harris by providing a resource managing or planning functionality for allocating limited resources to requesting clients.

18. As to claim 20, this claim is rejected for the same reason as claim 4 above.

19. As to claims 29 and 30, these claims are rejected for the same reason as claims 25-26 above.

20. Claims 3, 5-8, 11, 13-16, 19 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeKoning, Harris and Jones as applied to claim 17 above, and further in view of Fong et al (hereafter Fong) (U.S. Patent 6,263,359).

21. As to claim 19, DeKoning, Harris and Jones teach a resource planner applying a policy to a request that grants access to a resource to an activity while denying others [Jones, col. 5, lines 53-65]. DeKoning, Harris and Jones do not specifically teach a first group of resource consumers, a second group of resource consumers. However, Fong teaches requesters requesting resources are grouped in classes [Fong, abstract, lines 1-6; col. 2, lines 1-5; col. 14, lines 29-33; Fig. 1].

22. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have applied the teaching of Fong to the invention of DeKoning, Harris and Jones because the teaching of Fong would further enhance the functionality of DeKoning, Harris and Jones by serving consumer requests based on priority.

23. As to claims 8 and 16, these claims are rejected for the same reason as claim 19 above. In addition, DeKoning, Harris, Jones and Fong teach the invention substantially as claimed including the computer system operating according to a first resource plan [DeKoning, abstract, lines 3-8; Jones, col. 5, lines 38-52], comprising:

replacing the first resource plan with a second resource plan [DeKoning, abstract, lines 3-8].

24. As to claims 3 and 11, these claims are rejected for the same reason as claim 19 above.

25. As to claims 5 and 13, these claims are rejected for the same reason as claims 1, 3 and 25-26 above. In addition, DeKoning, Harris, Jones and Fong teach the invention substantially as claimed including the first resource consumer group comprising one or more resource consumers [Fong, col. 4, lines 12-25].

26. As to claims 6 and 14, these claims are rejected for the same reason as claims 1, 3 and 25 above.

27. As to claims 7 and 15, these claims are rejected for the same reason as claim 4 above.

28. As to claim 21, this claim is rejected for the same reason as claims 5 and 17 above.

29. As to claim 22, this claim is rejected for the same reason as claim 6 above.

30. As to claim 23, this claim is rejected for the same reason as claim 7 above.

31. As to claim 24, this claim is rejected for the same reason as claims 3, 8 and 21 above.

Response to Arguments

32. Applicant's arguments filed 6/13/05 have been fully considered but they are not persuasive.

33. In the remarks, Applicant argued in substance that:

a. References do not disclose or suggest setting an activity limit applicable to the first resource consumer to a prescribed value.

b. References do not disclose or suggest replacing a first resource plan with a second resource plan.

c. Motivation to combine DeKoning and Fong is not present.

d. References do not disclose or suggest a quiescence value for limiting the number of newly active session of a resource consumer group to zero.

34. Examiner respectfully traversed Applicant's remarks:

35. As to point (a), this argument is moot in view of the new ground of rejection.

36. As to point (b), given the broadest reasonable interpretation of "resource" defined by Microsoft Computer Dictionary Fifth Edition as any part of a computer system or a network, such as a disk drive, printer, or memory, that can be allotted to a program or a process while it is running, and a "resource plan" as a plan to allot the resource, the Examiner believed the limitation have been met. More specifically, as cited by the Examiner, DeKoning teaches "if the native controller determines that the spare controller's operating code is incompatible with the native controller's operating code, then the native controller notifies the spare controller that synchronization is required between both controllers." Given that the normal operation of the controller in which the host I/O requests were not block from the quiescence commands (i.e. all host I/O requests are allow to allot/consume the resource) as the first resource plan, and during quiescence operation of the controller in which the host I/O requests were block from the quiescence commands (i.e. prevent new host I/O requests to the controller but allows the controller to complete any host I/O requests currently executing) as the second resource plan, the

limitation have been met.

37. As to point (c), in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper.

38. As to point (d), please see rejection for claim 25 above.

39. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

40. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qing-Yuan Wu whose telephone number is (571) 272-3776. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Qing-Yuan Wu

Examiner

Art Unit 2194

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